

# **VOSS DECLARATION**

## **EXHIBIT B**

### **Biological Evaluation Bartlett Roadside Hazard Tree Removal**

# Biological Evaluation

Bartlett Roadside Hazard Tree Removal

Upper Lake Ranger District

Mendocino National Forest



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## Introduction

### Purpose

The purpose of this Biological Evaluation (BE) is to analyze the proposed activities associated with the Bartlett Roadside Hazard Tree Removal Project (Bartlett project) to determine effects on Threatened, Endangered, or Proposed species on the Federal Endangered Species List and Forest Service Sensitive Species. Management Indicator Species and migratory birds are discussed in separate reports.

### Regulatory Framework

This BE was prepared in accordance with Forest Service Manual (FSM) direction 2620, 2630, 2670, 2672, 2672.42 and meets legal requirements set forth under Section 7 of the Endangered Species Act of 1973, as amended [19 U.S.C. 1536 (c), 50 CFR 402.12 (f) and 402.14 (c); the Bald and Golden Eagle Protection Act of 1940, as amended; Migratory Bird Treaty Act of 1918 (as amended); Executive Order 13186 (migratory birds); National Environmental Policy Act, 1969; National Forest Management Act, 1976 (as amended); Northwest Forest Plan; and Mendocino National Forest Land and Resource Management Plan, 1995, as amended.

### Location

The Bartlett Roadside Hazard Tree Removal Project is located on the Upper Lake Ranger District on the Mendocino National Forest within the perimeter of the 2018 Ranch Fire on National Forest System lands (Figure 2).

### Species Considered

| Species  | Designation    | Habitat   | Habitat w/in analysis area | Carried forward in analysis |
|--|----------------|---|----------------------------|-----------------------------|
| Northern spotted owl ( <i>Strix occidentalis caurina</i> ) | ESA Threatened | Mature forests with dense canopies  | Yes                        | Yes                         |
| California red-legged frog ( <i>Rana draytonii</i> )       | ESA Threatened | Pools and backwaters within streams and creeks, ponds, marshes, springs, sag ponds, dune ponds, and lagoons | No                         | No <sup>1</sup>             |
|  |                |   |                            |                             |
| Northern goshawk ( <i>Accipiter gentilis</i> )             | FS Sensitive   | Mature to old growth forest with large trees and high canopy closure  | Yes                        | Yes                         |

<sup>1</sup> California red-legged frog (*Rana draytonii*) was not carried forward in analysis of this project because it is not currently present in any streams in Mendocino or Glenn Counties. Glenn County was a part of the frog's historic range. The California red-legged frog is found primarily in coastal drainages of central California from Marin County south to northern Baja California, Mexico (USFWS 2002).

| Species  | Designation  | Habitat  | Habitat w/in analysis area | Carried forward in analysis |
|--|--------------|--|----------------------------|-----------------------------|
| Willow flycatcher ( <i>Empidonax traillii</i> )                    | FS Sensitive | Standing or running water with willows or other shrubs   | No                         | No                          |
| Bald eagle ( <i>Haliaeetus leucocephalus</i> )                     | FS Sensitive | Forested areas adjacent to large bodies of water   | Yes                        | Yes                         |
| Pallid bat ( <i>Antrozous pallidus</i> )                           | FS Sensitive | Rocky outcrops in desert scrub   | Yes                        | Yes                         |
| Townsend's big-eared bat ( <i>Corynorhinus townsendii</i> )        | FS Sensitive | Montane forests with caves, cliffs, and rock ledges, and may use abandoned mines and other manmade structures  | Yes                        | Yes                         |
| North American wolverine ( <i>Gulo gulo luscus</i> )               | FS Sensitive | Boreal forests, tundra, and western mountains with arctic tundra, subarctic-alpine tundra, boreal forest, northeast mixed forest, redwood forest, and coniferous forest              | No                         | No                          |
| Pacific marten ( <i>Martes caurina</i> )                           | FS Sensitive | Montane forests with mature and old conifer forests  | Yes                        | Yes                         |
| Fisher ( <i>Pekania pennant</i> )                                  | FS Sensitive | Complex vertical and horizontal structure characteristics of late-seral forests  | Yes                        | Yes                         |
| Fringed myotis ( <i>Myotis thysanodes</i> )                        | FS Sensitive | Caves, mine tunnels, rock crevices, and old buildings  | Yes                        | Yes                         |
| Foothill yellow-legged frog ( <i>Rana boylei</i> )                 | FS Sensitive | Streams in valley-foothill hardwood, valley-foothill hardwood-conifer, valley-foothill riparian, ponderosa pine, mixed conifer, mixed chaparral, and wet meadows with 20-90% shading | Yes                        | Yes                         |
| Western pond turtle ( <i>Emys marmorata</i> )                      | FS Sensitive | Permanent and ephemeral aquatic habitats such as rivers, ponds, streams, lakes, wetland habitats, and altered habitats   | Yes                        | Yes                         |
| Karin's checkerspot butterfly ( <i>Euphydryas editha karinae</i> ) | FS Sensitive | Monkey Rock & Hull Mountain  | No                         | No                          |

## Methodology

### Northern Spotted Owl

The Mendocino National Forest's northern spotted owl habitat layer (an attribute of the Existing Vegetation layer which is neither accurate nor up to date) was overlaid with the most recent RAVG layer. The following table (Table 1) was used to determine the post-fire status of habitat, to the best of my ability, burned within the Ranch Fire. All habitat within the Bartlett project boundary was retyped.

*Table 1 - Post fire habitat based on basal area lost*

|                  | Basal Area Lost   |           |                    |                    |
|------------------|-------------------|-----------|--------------------|--------------------|
|                  | 0-25%             | 25-50%    | 50-75%             | 75-100%            |
| Pre-Fire Habitat | Post-Fire Habitat |           |                    |                    |
| Nest/Roost       | Nest/Roost        | Foraging  | Post-fire foraging | Post-fire foraging |
| Foraging         | Foraging          | Foraging  | Post-fire foraging | Post-fire foraging |
| Dispersal        | Dispersal         | Dispersal | X                  | X                  |

The analysis area for terrestrial wildlife is the larger Bartlett project area boundary not just the 200 foot roadside buffer.

## No Action Alternative

Under the No Action Alternative hazard trees within 200 feet of the roads would be left and there would also not be any fuels treatments along the roads.

## Proposed Action

### Project Description

In August of 2018 the Ranch Fire moved across approximately 240,000 acres of the Mendocino National Forest. Thus, large areas of fire killed trees, many of which are adjacent to forest roads, pose a hazard to our forest users and employees. In order to mitigate this risk and maintain our roads the forest is proposing to remove trees that pose as hazards along roads which access private inholdings and other areas the public and National Forest employees need immediate access.

Hazard tree abatement is a form of road maintenance required for safe travel by the public and for administrative uses. A 200' buffer on each side of the roads will be used in order to compensate for at least one and a half tree heights of standing dead trees that have a chance of striking the roads when they fall. The purpose of this project is to maintain our road system and promote safe travel and uncompromised ingress and egress on priority roads. Some of this work may be accomplished by salvage harvesting commercial trees that are hazards from fire-induced mortality that make them a threat to health and human safety (Hazard Tree Guidelines for Forest Service Facilities and Roads in the Pacific Southwest Region (Angwin 2012)). Hazard trees that are not able to be removed by commercial harvest will be either cut and left in place or cut and removed by other means.

## Proposed Actions

### Silviculture proposed actions

The purpose and need in the Bartlett project is to remove current and potential future hazard trees where they exist along roadsides. Effective fuels reduction will also be a beneficial outcome from the proposed activities.

It is important to emphasize that in order to reduce exposure along roadsides, along with the importance of keeping our roads open, that the marking guides utilize the lower probability of mortality threshold since it is imperative that we prevent leaving additional trees that may die.

Direct action is guided by the Mendocino National Forest Land and Resource Management Plan (1995) for matrix lands and late successional reserves.

### Selection Tree Criteria, Management Requirements and Mitigations:

#### 1. Road Side Hazard Tree Removal

- Avoid extended skids (100 feet or more) across slopes steeper than 35 percent.
- Allow for at least two tree heights within the road for designated treatment area (~ 200' road buffer).
- Fell and remove all merchantable hazard trees 14"+ DBH according to the Hazard Tree Guidelines (Angwin et al., 2012). Ensure those trees are within one and a half tree-heights of the road. Follow the Marking Guidelines for Fire-Injured Trees in California (Smith et al. 2011) and remove all merchantable trees 14"+ DBH with a 50% or higher probability of mortality within the 200' road buffer. Follow the guidelines based off of percent crown scorch killed by species as the 50% or higher probability varies depending on species. Removing these trees within the 200' road buffer will assist in negating future heavy fuel loads. Any trees with green foliage and ambiguous relative to falling within the Fire-Induced Mortality Guidelines will be marked with blue paint.
- Maintain a minimum of three recently-downed logs per acre, averaged over 40 acres within the roadside units, this does not include riparian reserves. Logs will be greater than 20 inches in diameter (large end). Logs will be greater than ten feet in length, with one log per acre greater than 20 feet in length. Leaving unmerchantable overstory trees within the roadside units will fulfill this need. Retain coarse woody debris already on the ground and protect where feasible from disturbance during treatment (e.g. slash burning and yarding) which might otherwise negatively impact the integrity of the substrate, also retain structure to offer protection for seedlings.
- When felling hazard snags, retain the highest stump possible, as safety allows.
- Any trees with nests (e.g. stick platforms) would be retained.
- Restrict ground-based skidding on slopes greater than 35 percent.
- All areas greater than 35% will require cable yarding.
- For trees less than 14" DBH; cut, skid, and deck all trees 8.0 – 13.9" DBH that fall under the Fire-Induced Mortality Guidelines and are one and a half tree heights of the road prism.
- For trees < 8.0 "DBH, cut and pile, masticate, chip, lop/scatter etc., if there is a threat of these trees falling on the road system.

### Fuels proposed actions

In commercial areas where trees are removed, whole tree yarded, any excessive fuels left from removal of hazard trees can be piled and burned or jackpot piled and burned or removed with an understory burn.

In on-commercial units mechanical treatment of hazard trees may include cut and yard; masticate and burn; thin, pile, and pile burn; jackpot burn; or understory burn. Hand treatment of hazard trees may include cut and pile, pile burn, jackpot burn, or understory burn.

### Project Design Features and Mitigation Measures

#### *Wildlife*

Around Pinnacle Rock and Guano Cave there will be a 300 foot buffer with a Limited Operating Period (LOP) between May 15 and August 15 to prevent noise disturbance of roosting bats.

Dead or dying trees that are not identified within the 200 foot roadside hazard buffer to hit the target if it falls should be left for wildlife habitat, i.e. bats and woodpeckers.

There will be a limited operating period (LOP) from February 1 – July 31 to prevent direct or indirect take of northern spotted owls caused by noise or smoke.

Where slash and trees need to be left to meet ground cover and coarse woody debris (CWD) requirements, surface fuel loading may be retained and not to exceed  $CWD > 20'' = 5\text{-}10 \text{ tons/acre} + 4\text{-}5 \text{ tons/acre of material} < 3 \text{ inches}$ .

## Existing Environment

### Species Accounts

#### Threatened & Endangered

##### *Northern Spotted Owl*

Northern spotted owls inhabit Douglas-fir, western hemlock, grand fir, white fir, ponderosa pine, Shasta red fir, mixed evergreen, mixed conifer hardwood, and redwood forest types. Spotted owls typically use older forest habitats that contain the structures and characteristics for nesting, roosting, and foraging. These characteristics include high canopy closure (60-90%), a multi-layered, multi-species canopy with large overstory trees (DBH > 30"), a high incidence of large trees with various deformities (large cavities, broken tops, mistletoe infections, and other evidence of decadence), large snags, large accumulations of fallen trees, and other woody debris on the ground, and sufficient open space below the canopy for flight. Foraging habitat will have similar characteristics as nesting and roosting but it may not always support a successfully nesting pairs of owls. Dispersal habitat usually consists of habitat of adequate tree size and canopy closure to provide protection from predators and minimal foraging opportunities (USFWS 2011).

The Private Timberland Guidelines prepared by FWS provide recommendations for the amount of nesting/roosting and foraging habitat needed for a home range and core area in a spotted owl territory. Within a home range (excluding the core area) it is recommended there be 935 acres of total foraging habitat. Within a core area it is recommended there be at least 250 acres of nesting/roosting habitat and at least 150 acres of foraging habitat. Prior to the Ranch Fire habitat for northern spotted owls was poor in the Bartlett project area.

In 2011 and 2012 surveys in the Lakeview project area did not locate any previous or new occupied northern spotted owl activity centers. Any activity has not been reported since the early 1990's or pre-Fork Fire which removed suitable habitat. Within the Bartlett project boundary there is 30,328 acres of grid code 4 and 3,819 acres of grid code 3 burn and the remaining 4,280 acres burned at grid code 1 and 2 during the Ranch Fire.

#### Activity Center 4040

The activity center 4040, or LAK007, Long Valley Creek, was established in 1972 and had a pair with two juveniles located in 1987. The last that this activity center was identified as active was in 1992 when a single owl was seen.

*Table 2 - Pre- and Post-fire habitat available in Activity Center 4040*

| AC4040       |            |            |              |            |            |
|--------------|------------|------------|--------------|------------|------------|
| Home Range   | Pre-fire   | Post-Fire  | Core Area    | Pre-fire   | Post-Fire  |
| NR           | 160        | 18         | NR           | 100        | 14         |
| F            | 171        | 27         | F            | 17         | 11         |
| D            | 558        | 131        | D            | 71         | 25         |
| PFF          |            | 28         | PFF          |            | 92         |
| <b>Total</b> | <b>889</b> | <b>204</b> | <b>Total</b> | <b>188</b> | <b>142</b> |

#### Activity Center 4048

Activity center 4048, or LAK0025, South Fork Long Valley Creek, was established in 1992 on a single, audible response during night surveys. There was no follow up that resulted in locating an owl.

*Table 3 - Pre- and Post-fire habitat within activity center 4048*

| AC4048       |             |            |              |            |            |
|--------------|-------------|------------|--------------|------------|------------|
| Home Range   | Pre-fire    | Post-Fire  | Core Area    | Pre-fire   | Post-Fire  |
| NR           | 165         | 15         | NR           | 70         | 13         |
| F            | 255         | 52         | F            | 34         | 10         |
| D            | 644         | 240        | D            | 89         | 13         |
| PFF          |             | 354        | PFF          |            | 81         |
| <b>Total</b> | <b>1064</b> | <b>661</b> | <b>Total</b> | <b>193</b> | <b>117</b> |

#### Activity Center 4041

Activity Center 4041, or LAK0031, Long Valley Creek, was established in 1990 based on a single male call during surveys. In 1992 another audible was detected during surveys, but survey notes indicate that this call was faint. There was never a visual of a spotted owl recorded.

*Table 4 - Pre- and Post-fire habitat within activity center 4041*

| AC4041     |          |           |           |          |           |
|------------|----------|-----------|-----------|----------|-----------|
| Home Range | Pre-fire | Post-Fire | Core Area | Pre-fire | Post-Fire |
| NR         | 44       | 5         | NR        | 0        | 0         |
| F          | 39       | 34        | F         | 21       | 5         |

|              |     |     |              |     |    |
|--------------|-----|-----|--------------|-----|----|
| <b>D</b>     | 407 | 95  | <b>D</b>     | 94  | 16 |
| <b>PFF</b>   |     | 44  | <b>PFF</b>   |     | 16 |
| <b>Total</b> | 490 | 178 | <b>Total</b> | 115 | 37 |

#### Activity Center 4038

Activity center 4038, or LAK0021, Pine Mountain, was established in 1986 when a single male was located. In 1987 a single male NSO was located followed by a pair in 1990.

*Table 5 - Pre- and Post-fire habitat within activity center 4038*

| <b>AC4038</b>     |                 |                  |                  |                 |                  |
|-------------------|-----------------|------------------|------------------|-----------------|------------------|
| <b>Home Range</b> | <b>Pre-fire</b> | <b>Post-Fire</b> | <b>Core Area</b> | <b>Pre-fire</b> | <b>Post-Fire</b> |
| <b>NR</b>         | 25              | 0                | <b>NR</b>        | 0               | 0                |
| <b>F</b>          | 72              | 18               | <b>F</b>         | 12              | 0                |
| <b>D</b>          | 448             | 125              | <b>D</b>         | 38              | 19               |
| <b>PFF</b>        |                 | 80               | <b>PFF</b>       |                 | 12               |
| <b>Total</b>      | 545             | 223              | <b>Total</b>     | 50              | 31               |

Prey for northern spotted owls in the California Coast Provinces is mainly the ducky-footed woodrat. Other important prey, depending on location, include deer mice, tree voles, red-backed voles, gophers, snowshoe hare, bushy-tailed woodrats, birds, and insects (USFWS 2011). Dusky-footed woodrats usually choose low laying areas near water sources, but may be found along hillsides. They avoid open areas with limited underbrush. On the Mendocino National Forest the best protection for a woodrat is live oak (Bonadio 2000).

#### Forest Service Sensitive Species

##### *Northern Goshawk*

Northern goshawks nest in a variety of forest types, ages, structural conditions, and successional stages (Reynolds et al. 1992). Optimum habitat for the goshawks consists of conifer/hardwood, mixed conifer, red fir, or white fir composed of trees 24" DBH or greater and a canopy closure 40% or greater. Goshawks will also use trees 12-24" DBH with canopy cover as low as 20%. Nests are generally at the bottom of the northern slope where adults can perch above the nest to see into the nest. Nest are also close to water and openings suitable for foraging (>0.1 acre in size) (USFS 1995).

Prey for the northern goshawk are ground and tree squirrels, rabbits and hares, large passerines, woodpeckers, game birds, and corvids, occasionally reptiles and insects (Squires and Reynolds 1997). Their diet may vary seasonally due to differences in timing of migration, hibernation, or periods of inactivity among prey species, the cyclic nature of some prey species, or difference in food preferences among goshawks (Reynolds et al. 1992).

There are no known northern goshawk nests within the Bartlett project area. This area likely functioned as dispersal habitat for the northern goshawk (USFS 1995).

*Bald Eagle*

Optimum breeding season habitat for eagles is conifer/hardwood, Douglas fir, mixed conifer, or ponderosa pine with greater than 20% crown closure. Nests are generally found in mature or old-growth trees such as dominant sugar and ponderosa pines with large limbs and open crowns, snags, cliffs, rock promontories, and rarely on the ground or on human-made structure such as power poles and communication towers (USFWS 2007).

Bald eagles require large bodies of water and/or free-flowing rivers with adjacent snags or other structures for perching. They are opportunistic feeders and fish comprise most of their diet but they also prey on waterfowl, shorebirds/colonial water birds, small mammals, turtles, and carrion. Ideal nest sites are no more than a mile from a foraging area (USFS 1995).

The Bartlett project area may have provided foraging habitat for bald eagles due to its proximity to Clear Lake.

*Pallid Bat*

Pallid bats are common in desert habitats but they may also be found in oak and pine forests or open farmland (Weber 2009) but in some areas in California they may be using mixed conifer and evergreen habitats. Bats in California use day or night roosts that may be live trees or snags, rock crevices or buildings with day and night roost sites alternating (Baker et al. 2008).

Pallid bats are gleaners and forage close to the ground (Baker et al. 2008). They prey on large flying and ground-dwelling insects, including beetles, crickets, katydids and grasshoppers, cicadas, moths, spiders, scorpions, and centipedes. Occasionally they will take small lizards and mice (Weber 2009).

There are several rock outcrops within the Bartlett project area that may be used by pallid bats.

*Townsend's Big-eared Bat*

Townsend's big-eared bats use a variety of habitats, mostly montane forests with pine, fir, and aspen trees surrounded by shrub and grasslands. These bats roost in caves, cliffs, rock ledges, abandoned mines, buildings, and in open attics. Roosting places are generally cooler with a lot of air movement and have open ceilings as Townsend's big-eared bats do not crawl well (Sullivan 2009). In California, this bat is known to use lava tubes, man-made structures, some limestone caves (Kunz and Martin 1982), and large trees (Piaggio 2005). They tend to have high fidelity towards maternity roosts often returning year after year to certain roosts, particularly caves (Fellers and Pierson 2002).

Townsend's big-eared bats in the west typically forage in dense foliage. Fellers and Pierson (2002) found that in coastal California, bats mainly forage in riparian woodlands. The bats would vacate their roost at night and follow densely vegetated gullies and then spent a majority of their time foraging in forested habitats, utilizing the forest edge but avoiding open areas. Their prey tends to be exclusively moths but they will also eat beetles, flies, and other small insects (Sullivan 2009).

Townsend's big-eared bats have been observed at Pinnacle Rock and Split Rock. Split rock is within the project boundary but does not have nearby roads being treated.

*Fringed myotis*

The fringed myotis uses caves, crevices, mines, and buildings for roosting, hibernacula, and maternity colonies (Keinath 2005; CWHR 2008). They day and night roost under bark and in tree hollows, and in

northern California they day roost in snags (Keinath 2005; Weller and Zabel 2001). There is increased likelihood of occurrence of this species as snags greater than 30 cm in diameter increases and percent canopy cover decreases. Large snags and low canopy cover, typical of mature, forest habitat types, offer warm roost sites. Decay classes were two to four in ponderosa pine, Douglas-fir, and sugar pine (Keinath 2005). In California, this species is found from 1300 to 2200 meters in elevation in pinyon-juniper, valley foothill hardwood and hardwood-conifers (CWHR 2008).

The fringed myotis consumes primarily beetles, and is supplemented by moths and fly larvae (Keinath 2005) captured in the air and on foliage (CWHR 2008).

Fringed myotis have been observed at Split Rock.

#### *Marten & Fisher*

Marten and fisher inhabit mature and old growth forests on the Mendocino National Forest (USFS 2004, USFS 1995). They prefer areas with large trees, dense canopy cover, and areas with snags and coarse woody debris (USFS 1995, Beyer and Golightly 1996). Snags, live trees with deformities, and down wood are important features for den and rest sites, as well as protection from predators for martens (Bull et al. 2005, Lofroth et al. 2010, USFWS 2004).

#### *Foothill Yellow-legged Frog*

The foothill yellow-legged frog occupies shallow portions of perennial streams and rivers with cobble-size substrate within open, sunny banks, in forests, chaparral, and woodland habitats (Californiaherps.com 2000, Jennings and Hayes 1994). Forest habitats include valley-foothill hardwood, valley-foothill hardwood-conifer, valley-foothill riparian, ponderosa pine, mixed conifer, coastal scrub, mixed chaparral, and wet meadow types (CWHR 2008). Gravel and cobble river bars along riffles and pools with at least 20% shading seems to be preferred by sub-adults and adults (Ashton et al. 1998). Breeding habitat is typically classified as a stream with riffles containing cobble-sized or larger rocks as substrate (Zeiner 1990). Frogs may also be found in moderately vegetated backwaters, isolated pools, and slow moving rivers with mud substrates (Ashton et al. 1998).

#### *Western Pond Turtle*

The pond turtle is a habitat generalist occurring in permanent and ephemeral habitats below 2500 ft in elevation (USFS 1995). Turtles have been sighted in rivers, streams, lakes, ponds, permanent and ephemeral wetland habitats, and altered habitats including reservoirs, abandoned gravel pits, stock ponds, and sewage treatment plants. Holland (1994) found that observations made in the altered habitats tend to be turtles that have been displaced by the destruction of natural habitats.

Terrestrial habitats are less understood. In southern California animals spend only one to two months in terrestrial habitats while animals in the northern portions of the range can be terrestrial for up to eight months (Lovich and Meyer 2002). Turtles have been documented to overwinter under litter or buried in soil in areas with dense understories consisting of vegetation such as blackberry, poison oak and stinging nettle which reduces the likelihood of predation (Davis 1998).

## Effects of No Action

If there was no action taken within the Bartlett project area there would be no affect to ESA listed or Forest Service Sensitive Species. Dead and dying trees within the roadside buffer would be available to

wildlife as snags or coarse woody debris and downed logs. Over time the area may become less desirable for wildlife as snags fall and new vegetative growth is hindered.

## Effects of the Proposed Action

### Northern Spotted Owl

#### Direct & Indirect Effects

Within the 200 foot buffer of roads to be treated there is 117 acres of dispersal, 34 acres of foraging, 48 acres of nesting/roosting, and 38 acres of post-fire foraging. Removing roadside hazard trees will have no direct effects on northern spotted owl. Any green trees that would contribute to NSO nesting/roosting or foraging habitat will be retained. This project adheres to Recovery Action 12 in the Recovery Plan (2012) by retaining large trees and downed wood. Outside of the project area there will be plenty of snags available for use by spotted owls. A minimum of three recently downed logs per acre will be retained. This project does not remove or downgrade remaining suitable habitat that remains post-fire.

There will be a Limited Operating Period from February 1 – July 31 designated in areas of remaining nesting/roosting habitat and around known Activity Centers (Figure 1). Disturbance surveys will not be completed for the Bartlett Roadside Hazard Tree Removal Project, but surveys in 2011 and 2012 for the Lakeview project did not detect spotted or barred owls. There will be no affect to northern spotted owls from the Bartlett Roadside Hazard Tree Removal Project.

### Northern Goshawk

#### Direct & Indirect Effects

There will be no direct effects to the northern goshawk due to actions taken in the Bartlett project area. There are no known nests within the project area and only one recorded sighting from 1990. This area likely only provided dispersal habitat for northern goshawk prior to the fire.

Removal of roadside hazard like snags may remove habitat for woodpeckers that are prey for the northern goshawk but there will be plenty of snags available outside of the project area.

### Bald Eagle

#### Direct & Indirect Effects

There will be no direct effects to bald eagles because there are no known eagle nests within the Bartlett project area.

Indirect effects may include the removal of snags used for perching and resting. There are plenty of snags on the landscape that this project would not cause a trend listing.

### Bats

#### Direct Effects

Bats may be affected by the removal of hazard trees that have sloughing bark that may be used as a roost. The proposed action would include removing all dead or dying trees within the roadside hazard tree removal units with no intent of retaining any snags that may be used by roosting bats. Steel et al. (2018) were not able to conclude that salvage logging negatively affected snag roosting bats because

their acoustical surveys were better suited to detect foraging bats. Hayes and Loeb (2010) (as cited in Steel et al. 2018) concluded that removing snags would remove potential roost sites for bats.

Steel et al. (2018) suggest that for short-term benefits the retention of large trees and snags would help maintain roosting sites. All dead or dying trees that may strike a target if they fall will be removed but any live trees will be retained and be available on the landscape for bats. There is also an expanse of dead or dying trees outside of the project are available for bats to use as roosting structures.

#### Indirect Effects

Buchalski et al. (2013) cited studies that suggest bats are resilient to landscape scale fire because the fire removes vegetation and litter that may hinder bats from foraging and that may disrupt echolocation. By removing snags, small diameter trees, and understory vegetation foraging opportunities may be further improved for bats (Hayes and Loeb 2010 in Steel et al. 2018, Steel et al. 2018).

There will be a 300 foot buffer around Pinnacle Rock and an unnamed rock outcrop (Guano Cave) near South Fork Long Valley Creek from May 15 – August 15 to protect roosting bats from disturbance by noise. This project may impact individual bats but will not cause a trend toward listing for Townsend's big-eared bat, pallid bat, or fringed myotis.

#### Marten & Fisher

##### Direct & Indirect Effects

There are no known marten or fisher dens within the Bartlett project area. There have been two sightings of martens within the project area. One sighting had no supplemental information including no date of the sighting and the second sighting occurred in 2017. Since there are no known dens there will be no direct effects to martens and fishers.

Indirect effects may include removal of snags and down wood that may have been used as a den or rest site by marten or fisher. There are several rock outcrops, snags, and other features that will be left on the landscape outside of project activities so this project will not cause a trend toward listing of the marten or fisher.

There will a minimum of three downed logs greater than 20 inches at the large end and greater than 10 feet in length per acre averaged over 40 acres retained within the roadside units.

#### Foothill Yellow-legged Frog

##### Direct & Indirect Effects

There are no perennial streams within the 200 foot buffer of roads slated for treatment. There are also no reports of foothill yellow-legged frogs within the larger Bartlett project area. If there are frogs within any of the streams they will be protected by the Streamside Management Zone (SMZ) buffer.

#### Western Pond Turtle

##### Direct & Indirect Effects

There will be no direct effects to the western pond turtle as all suitable habitat would be protected within the SMZs. Regrowth post-fire is important for turtles that may be using the dense brush for overwintering and care should be taken to not crush or destroy regrowth during activity within SMZs or riparian zones. There are no reports of western pond turtle within the project area.

### Cumulative Effects

There are a couple salvage projects taking place on private lands within the Bartlett project area.

The protection measures and design features described for the Bartlett Roadside Hazard Tree Removal project minimize the chance for adverse cumulative affects to ESA listed and Forest Service Sensitive Species.

### Determination

There Bartlett Roadside Hazard Tree Removal Project will have no effect on northern spotted owls or their habitat.

It is my determination that the Bartlett Roadside Hazard Tree Removal Project will not affect northern goshawk, bald eagle, marten, fisher, foothill yellow-legged frog, or western pond turtle.

It is my determination that the Bartlett project may affect individuals but will not cause a trend toward listing for pallid bat, Townsend's big-eared bat, and fringed myotis.

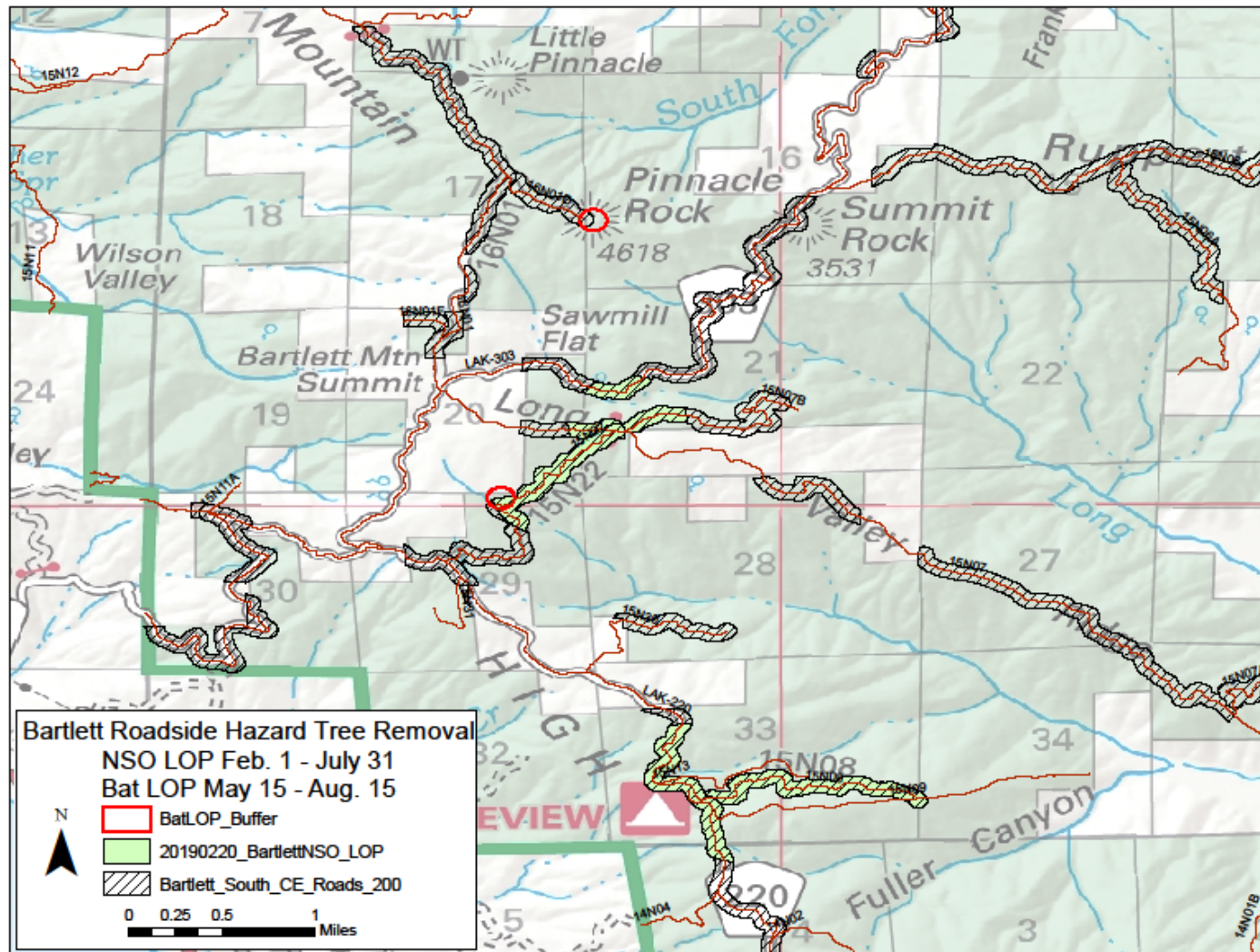
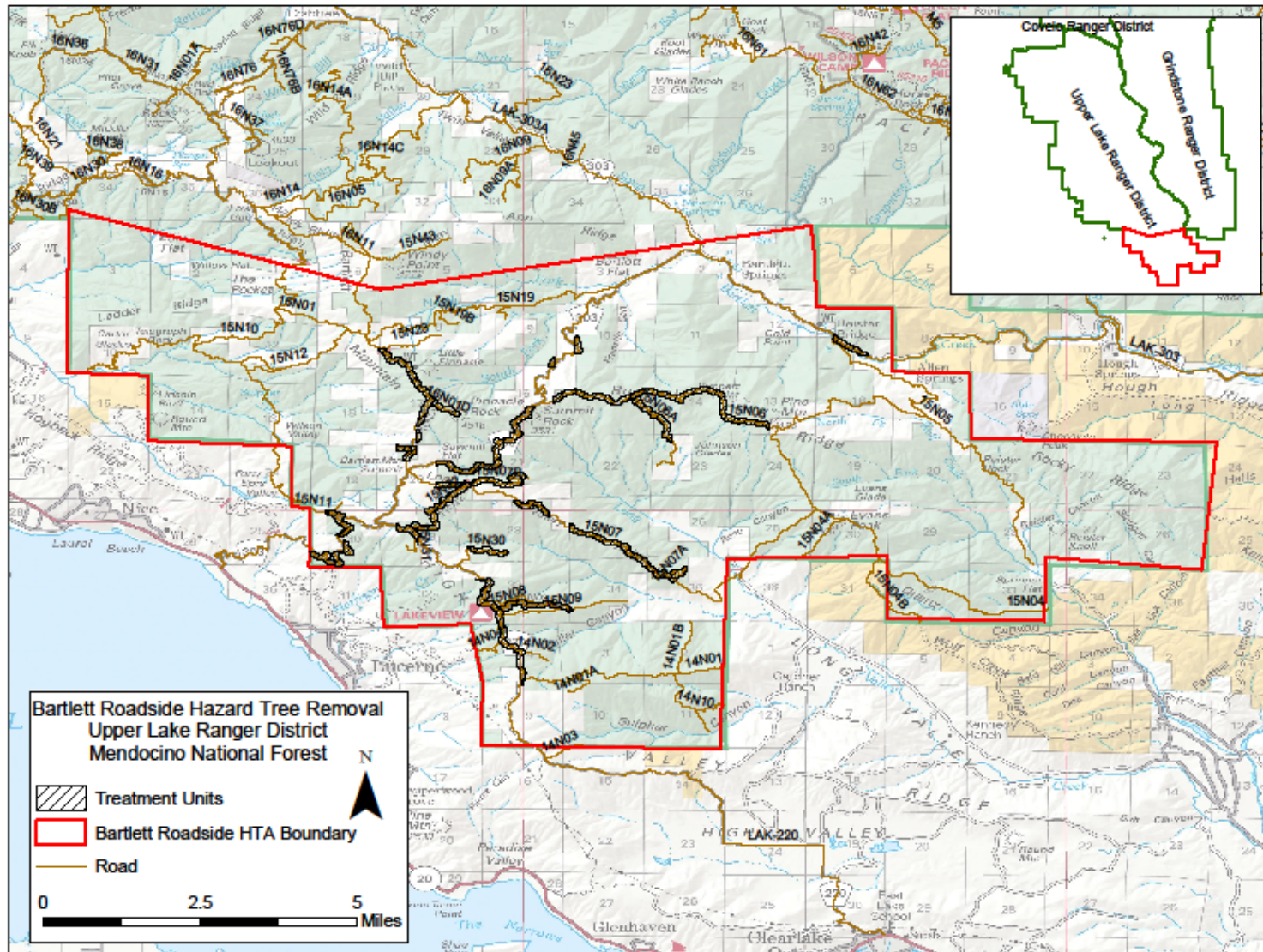


Figure 1 - Limited Operating Periods for bat species and northern spotted owl within the Bartlett Roadside Hazard Tree Removal project area. Bat LOPs are from May 15 - August 15 to protect roosting bats from noise disturbance and NSO LOPs are from February 1 - July 31 to protect any nesting owls from being disturbed by activity noise above ambient levels.



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